Response to the Federal Finance Minister's invitation for Industry consultation ; executive brief to Federal Govt. 'Recommendations with respect to the 1986 budget and Canada's nuclear assests'

CNA ANC

Canadian Nuclear Association

Response to the Federal Finance Minister's Invitation for Industry Consultation

Executive Brief to Federal Government
"Recommendations with Respect to the 1986 Budget and Canada's Nuclear Assets"

Disponible en français
sur demande

January, 1986

INTRODUCTION

In March 1985, the Canadian Nuclear Association (CNA) presented an extensive brief to the Minister of Finance, Michael Wilson, in response to the challenge issued to Canadians in the Minister's document "A New Direction for Canada". This further brief has been prepared in the spirit of the Minister's letter to the CNA dated May 23rd, 1985 in which Mr. Wilson indicated his desire for continued participation of groups such as the CNA in the consultative process.

Appended to this brief is a reference sheet entitled "What Nuclear Energy Means to Canada". The facts in this sheet are extracted from the 1985 brief and updated with the latest information.

Since the major emphasis in energy related discussions is usually on supply and demand of hydrocarbons such as oil and gas, it may come as a surprise to most Canadians that Canada's uranium production contained twice the energy in Canada's crude oil production and exceeded the total energy in all of the country's crude and natural gas production in 1984. Another little known fact is that nuclear power will soon produce more electricity world-wide than all the world's hydro-electric plants.

Letters received by the CNA in the past year from the Minister of Energy, Mines and Resources, Pat Carney, and the Minister of State for Mines, Robert Layton, leave no doubt that they are aware of the outstanding achievements of Canada's nuclear program and the importance of the industry to the national economy.

The CNA intends to more widely disseminate this knowledge to the Canadian public. As part of that process **it is hoped that the importance of uranium both for domestic use and exports, and Canada's success in harnessing nuclear power for peaceful and beneficial applications, will be fully reflected in decisions and statements related to the development of government fiscal and energy policies.**

A number of matters on which the industry wishes to maintain an ongoing dialogue with government, and which may have implications with respect to the formulation of the upcoming 1986 Budget, are outlined below.

1.0 ELECTRICITY SUBSTITUTION FOR OIL

Canada has been progressing well in reducing domestic oil consumption by encouraging conservation measures and substituting gas and electricity for oil. More can be done which could reduce oil imports and at the same time free-up domestic production for export.

For instance, oil for heating at 40 cents/litre ($64/barrel) and used at 65% efficiency is equivalent to electricity at 5.8 cents/kWh, a price which is considerably more than the approximately 4.0 cents/kWh which the great majority of Canadians pay for electricity.

A price of oil of $30/barrel (or U.S. $21.50/barrel) is equivalent to a cost of only 1.8 cents/kWh. But such a comparison ignores the fact that crude oil is an unrefined limited-use resource whereas electricity is a manufactured product with an infinite variety of energy applications. When viewed simply as a source of primary heat energy Ontario's nuclear plants produced energy in 1984 at a crude oil price equivalent of less than $13/barrel.

This clearly indicates that nuclear energy should substitute for oil for as many primary or secondary applications as possible. At the price at which energy can be obtained from uranium, the same consideration should be given to serving the energy needs of Canadians through nuclear electricity and heat than is being given to the need to develop alternative resources such as environmentally sensitive frontier oil.

In addition, electricity and heat energy from nuclear plants are manufactured products which generate employment as well as contributing substantially to the national economy.

Although current market surpluses are forcing down the spot price of crude oil, the long-term cost is bound to rise and such increases are outside Canada's control.

RECOMMENDATION

CNA therefore urges the federal government to develop new programs to assist Canadians to substitute their use of limited and non-renewable hydro-carbons for virtually inexhaustible hydro-electric and nuclear-electric/nuclear-heat sources.

2.0 TAXATION OF ELECTRICITY

From time to time suggestions arise as to the desirability of generating revenue through taxation of domestic electricity consumption or electricity exports.

Arguments supporting such suggestions generally ignore a very important difference between electricity and other energy sources such as oil and gas.

Oil and gas are non-renewable primary energy assets which, once consumed, are lost forever. There can be an excellent case made for taxing such resources, particularly if part of the revenue flows to ensuring their replacement by long-term alternative sources of energy, or major social programs such as reducing budget deficits which benefit the prime owners of these resources, the people of Canada.

On the other hand electricity is mainly produced by renewable hydro-electric sources or virtually inexaustible nuclear sources. It is therefore a manufactured product in which revenues are generated both through the employment created and on taxes gathered from profits of the manufacturing, construction and mining companies involved. The provinces also gather revenue through water rentals.

Exports are dependent on price. Taxation of exports would tend to be self-defeating in that it would increase the price and reduce the level of sales. The net effect on the Canadian economy would be negative.

Similarly our resource and manufacturing industries are dependent on low cost electricity to remain competitive in the export market and again taxation on domestic consumption would have a negative effect, particularly on exports and balance of trade.

RECOMMENDATION

The CNA therefore urges the government to reaffirm that it is not considering a tax on electricity sales.

3.0 URANIUM EXPORTS

A major concern related to uranium exports was communicated to Minister Carney in September 1985. The mining company members of CNA had watched with apprehension vigorous lobbying efforts in the United States to impose an embargo on foreign uranium imports. Over the next few years the U.S. market for nuclear fuel represents approximately fifty percent of the uncommitted uranium market world-wide. Although Canadian uranium remains very competitive in the U.S. market, an embargo on imports would have a most detrimental impact on our uranium mining industry which directly employs more than 7000 Canadians.

We are encouraged by Minister Carney's response of October 1st, 1985 which confirmed that the government will continue to emphasize the importance of continued access to the U.S. market in discussions with the U.S. administration.

RECOMMENDATION

While these discussions are ongoing, the CNA, and its members, strongly emphasize a wish to continue to be consulted on this critical issue and urge the government to work towards maintaining an open market for uranium with the U.S.A.

4.0 RESEARCH AND DEVELOPMENT

Federal Government expenditures on nuclear research and development have been of the same order of magnitude per capita as other nations which embarked on the development of a domestic nuclear research program. And as will be seen from the table below, Canada has achieved an outstanding return. Not only has Canada spent the least in total cost, we have generated more electricity per government research dollar spent. Government expenditures have already resulted in investments of more than $20 billion in the nuclear segment of Canada's economy.

	Electricity per US $ spent (kWh)	Total Expenditure (US $ billion)
Canada	165	2.4
U.K	121	5.8
U.S.A.	102	30.3
Japan	92	8.4
France*	59	10.6
W. Germany	54	10.8
Italy	22	2.9

*(To end of 1983)

What the table does not show is that so far only the American originated LWR design and our CANDU system are commercially available in the international marketplace. Thirty-four countries world-wide now have nuclear power reactors in-service or under construction. And many more countries, many of whom have good international credit and are well disposed towards trade with Canada, are about to enter the marketplace. The near-future potential for sales of CANDU reactors and associated supplies and services could amount to tens of billions of dollars and tens of thousands of long-term jobs.

To realize this opportunity it is necessary to maintain our competitive edge by continued R & D on many aspects of the CANDU fuel cycle, not only for export sales but to support the continuation of the world-leading performance of our domestic reactors.

The continued visible endorsement of the federal government is an essential element in convincing other countries that Canada is committed to produce and maintain an excellent product incorporating the very latest in high-tech knowledge.

RECOMMENDATION

The continued development of a highly efficient and focussed industry is in the best interest of the Canadian economy and our member companies. The CNA, while strongly supporting the concept of rationalization within the industry at this stage of its maturity, urges the government to continue its R & D investment until completion of rationalization studies and sufficient funding for the continuance of our world-class R & D facilities and activities is assured.

5.0 CANDU REACTOR MANUFACTURING & CONSTRUCTION

5.1 Domestic Reactors

The last domestic nuclear units under construction will be in service by 1992. Ontario Hydro's evidence before a recent hearing of Ontario's Select Committee on Energy was that a further addition to the Ontario system could not be put in service until 1998. Although the output from such an addition might be required prior to that date, the possibility of reducing the lead time is considered highly doubtful.

Therefore, apart from the opportunity to build a second unit at the Point Lepreau site in New Brunswick, there will be at least a six-year period when the industry's capability to supply domestic orders could be unused.

As with the Point Lepreau proposal in New Brunswick, the advantages of pre-building generating capacity in advance of provincial need are being discussed both for hydro-electric potential in provinces such as Manitoba and Quebec and for nuclear-electric generation in Ontario, particularly in conjunction with increased electricity sales to the U.S. market.

As noted in the discussion paper entitled "Fuelling Ontario's Future", released by the Ontario Ministry of Energy in September 1985:

"If the province continues the construction of new nuclear plants, it may be able to take advantage of the electricity export opportunities that arise from their low fuelling cost. The export option is appealing since it may be one way to ensure security of supply during periods of uncertainty about load growth trends; to moderate electricity rates in the Province; and to maintain the viability of the current generation construction industry. This option also has the appeal of assisting regional development during times of low economic growth."

In its response to the discussion paper the CNA noted that if the province wishes to retain its capability of building on its highly successful nuclear power investment, a

top priority is to ensure the continuity of Canada's manufacturing and construction capability. The CNA urged the Ontario government, in conjunction with the federal government, to ensure that the combination of construction of domestic CANDU nuclear-electric power systems units and export sales is indeed sufficient to maintain a viable future nuclear industry in Canada.

In France, for instance, which already generates 70% of its domestic electricity consumption by nuclear power, the government has officially confirmed a plan for one nuclear unit order per year for the next four years. While there remain similar doubts, as in Canada, as to the level of future load growth, this action is being taken to preserve the nation's nuclear infrastructure during a period of slow business world-wide.

It should also be noted that Ontario Hydro's nuclear plants supplied electricity to the Ontario grid at 2.2 cents/kWh in 1984 while Quebec's Baie James hydro-electric plants supplied electricity to the Quebec grid at 2.8 cents/kWh in the same year. Given that Baie James was the most economical large scale resource available to Quebec, additional nuclear units in Canada would deliver power more cheaply than a new large hydro-electric plant in Quebec built in the same time period.

RECOMMENDATION

The CNA therefore urges the federal government to move as quickly as possible to assess the situation and take appropriate action. In particular, government support and early approval of the Point Lepreau proposal is regarded as a critical step in that direction.

5.2 Export Sales

The most imminent prospect for the export sale of a CANDU reactor is the proposed Akkuyu project in Turkey, a project which will require federal guarantees with respect to Atomic Energy of Canada Limited's joint ownership proposal.

On November 25, 1985, the CNA sent a letter in support of the project to Minister Carney with copies to the Ministers of External Affairs, International Trade and Finance.

In that letter, the CNA, on behalf of its member companies, also recorded support for the innovative approach to marketing nuclear-electric power systems which resulted in this export opportunity for the reactor component in face of capital constraints of importing countries and competition in the international marketplace.

We expect that other countries considering entering the marketplace will be closely watching the outcome of these deliberations and in particular the level of confidence Canada places on the products which it seeks to export.

Federal government support for the Akkuyu proposal would send a clear message abroad that Canada has the resources and the confidence to enter fierce international competition in a high-tech market and emerge a winner. And it would have a positive effect on other export opportunities.

RECOMMENDATION

The CNA wishes to reiterate its support for the Akkuyu proposal and any similar joint venture opportunities which may arise in the near future, particularly projects encompassing the entire plant.

SUMMARY

The need for federal government actions to build on the excellent return which Canada has secured from its investments in nuclear energy technology have been highlighted.

Specifically the CNA calls upon the government to:

- **Fully reflect in its decisions and statements on fiscal and energy policy the importance of uranium to the Canadian economy, and Canada's success in peaceful and beneficial nuclear applications.**
- **Develop new programs to assist Canadians to substitute electricity for non-renewable hydro-carbons.**
- **Reaffirm that electricity sales will not be subject to a federal tax.**
- **Continue to support free access to the U.S. market for uranium.**
- **Assure sufficient funding to maintain Canada's world-leading nuclear R & D facilities and activities.**
- **Support the commitment to construction of a second unit at Point Lepreau and assess opportunities in other provinces to advance domestic orders where possible.**
- **Provide the finance guarantees to allow AECL to proceed with the sale of a reactor to Turkey and encourage similar joint-venture, export opportunities.**

These actions will ensure the continuity of jobs in the construction and manufacturing sectors and maximize the return on Canada's investment in its CANDU assets.

APPENDIX A
CNA COMPANY MEMBERSHIP LISTING

Acres International Limited, Toronto, Ontario
Alberta Power Limited, Edmonton, Alberta
ALCAN Aluminum Ltd., Montreal, Quebec
American Nuclear Society, LaGrange Park, Illinois, USA
Amok Limited, Saskatoon, Saskatchewan
Andec Manufacturing Ltd., Rexdale, Ontario
ASEA INC., Montreal, Quebec
Atomic Energy of Canada Ltd., Ottawa, Ontario
B.C. Hydro Power Authority, Vancouver, B.C.
Babcock & Wilcox Canada Ltd., Cambridge, Ontario
Bata Engineering Co. Ltd., Batawa, Ontario
BBC Brown Boveri Canada Ltd., Montreal, Quebec
Bechtel Canada Engineers Ltd., Toronto, Ontario
Bingham-Willamette Co., Burnaby, B.C.
The Book Press Ltd., Toronto, Ontario
Bristol Aerospace Ltd., Winnipeg, Manitoba
British Library, Yorkshire, England
British Nuclear Fuels PLC, Cheshire, England
Brown Boveri Howden Inc., Scarborough, Ontario
C-E Canada Ltd., Ottawa, Ontario
CAE Electronics Ltd., Montreal, Quebec
Canada Alloy Castings Ltd., Kitchener, Ontario
Canada Forgings Inc., Welland, Ontario
Canada Wire and Cable Ltd., Don Mills, Ontario
Canadian Electrical Association, Montreal, Quebec
Canadian General Electric Co. Ltd., Peterborough, Ontario
Canadian Institute for Radiation Safety, Elliot Lake, Ontario
Canadian Worcester Controls Ltd., Scarborough, Ontario
Canatom Inc., Montreal, Quebec

Carleton University, Ottawa, Ontario
CECO Consultants Limited, Toronto, Ontario
Chalk River Tech. & Technol./CLN Local 1568, Deep River, Ontario
Chromalox Canada Inc., Rexdale, Ontario
Cogema Canada Limited, Montreal, Quebec
College Tool & Die Ltd., Mississauga, Ontario
Le commissariat à l'énergie atomique, Paris, France
John Crane Canada Inc., Hamilton, Ontario
Denison Mines Ltd., Toronto, Ontario
Dept. of Energy, Mines & Resources, Ottawa, Ontario
Dept. of External Affairs, Ottawa, Ontario
Dept. of Industrial Expansion, Ottawa, Ontario
Dept. of the Environment, Ottawa, Ontario
Dominion Bridge-Sulzer Inc., Lachine, Québec
Donlee Manufacturing Industries Ltd., Weston, Ontario
J.M. Douglas Consultant, Cambridge, Ontario
DSMA ATCON LTD., Toronto, Ontario
Ecolaire Canada Ltd., Kitchener, Ontario
Eldorado Resources Ltd., Ottawa, Ontario
Electricité de France, Paris, France
Elsam Kraftvaerksgruppen, Fredericia, Denmark
Embassy of Brazil, Ottawa, Ontario
Energy Conversion Systems, Ottawa, Ontario
Energy Resources Conservation Board, Calgary, Alberta
Esso Resources Canada Ltd., Calgary, Alberta
Euratom Library Commission, Brussels, Belgium
Ezeflow Inc., Granby, Quebec
Fachinformationszentrum, Leopoldshafen, West Germany
Farris Industries Canada, Brantford, Ontario
Foster Wheeler Ltd., St. Catharines, Ontario
Foundation Company of Canada Ltd., Toronto, Ontario
George Brown College, Toronto, Ontario
Gravatom Industries Ltd., Hampshire, England
Harriet Irving Library (University of N.B.), Fredericton, N.B.
Hitachi (Canadian) Ltd., Toronto, Ontario
Howard University Library, Washington, D.C., USA
Hydro-Québec, Montreal, Quebec
Institute of Nuclear Energy Research, Taiwan, Republic of China
Italimpianti S.P.A., Genova, Italy
Jarda FCS Inc., Montreal, Quebec
Korea Electric Power Corp., Seoul, Republic of Korea
R. Laborie and Associates, Rexdale, Ontario
Labserco Ltd., Oakville, Ontario
L'Ecole Polytechnique, Montreal, Quebec
F. Clyde Lendrum Consulting Ltd., King City, Ontario
London Nuclear Limited, Niagara Falls, Ontario
Lummus Canada Inc., Willowdale, Ontario
M.S.E. Engineering Systems Ltd., Downsview, Ontario
MacLaren Engineers Inc., Toronto, Ontario
MacLaren Plansearch Inc., Toronto, Ontario
Marine Industries Ltd., Montreal, Quebec
Martineau Walker, Montreal, Quebec
Marubeni Canada Ltd., Toronto, Ontario
McMaster University, Hamilton, Ontario
Meikle Engineering Services Ltd., Mississauga, Ontario
Mitsui & Co. (Canada) Ltd., Toronto, Ontario
Monserco Limited, Mississauga, Ontario
N.E.I. Parsons Canada Ltd., Toronto, Ontario
New Brunswick Electric Power Commission, Fredericton, N.B.
New Zealand Electricity, Wellington, New Zealand
Newman Hattersley Ltd., Mississauga, Ontario
Nicholls Radtke Ltd., Cambridge, Ontario
Nova Scotia Power Corporation, Halifax, N.S.
Nova Scotia Research Foundation, Dartmouth, N.S.
NPM Nuclear Project Managers Canada Inc., Mississauga, Ontario
NU-TECH Metals Inc., Arnprior, Ontario
Nuclear Assurance Corporation, Norcross, Georgia, USA
Nuclear Construction Managers, Montreal, Quebec
Nuclear Insurance Association of Canada, Toronto, Ontario
Nuclear Metals Inc., Concord, Massachusetts, USA
Nuclear Shielding Supplies & Service, Longueuil, Quebec
NUKEM GmbH, Hanau, West Germany
Ontario Hydro, Toronto, Ontario
Ontario Hydro Employees Union/CUPE Local 1000, Toronto, Ontario
Ontario Robotics Centre, Peterborough, Ontario
Pakistan Atomic Energy Commission, Islamabad, Pakistan
Phillips Cables Limited, Brockville, Ontario
Qualprotech Inc., Beaconsfield, Quebec
Quebec Ministry of Energy & Resources, Ste. Foy, Quebec
Queen's University, Kingston, Ontario
Ralfor Steel Limited, St. Laurent, Quebec
Reed Stenhouse Limited, Toronto, Ontario
Reuter Stokes Canada Ltd., Cambridge, Ontario
Rio Algom Ltd., Toronto, Ontario
Robertson & Associates, The Coopers & Lybrand Consulting Group, Toronto, Ontario
The Royal Bank of Canada, Toronto, Ontario
Royal Military College, Kingston, Ontario
Safety Supply Canada, Toronto, Ontario
Saskatchewan Mining Development Corporation, Saskatoon, Saskatchewan
Seneca College of Applied Arts, Toronto, Ontario
SENES Consultants, Willowdale, Ontario
Shawinigan Lavalin Inc., Montreal, Quebec
SIHI Pumps Limited, Guelph, Ontario
Society of AECL Professional Employees, Deep River, Ontario
Spar Aerospace Ltd., Weston, Ontario
Spectrum Engineering Corporation, Peterborough, Ontario
Sulzer Canada Inc., Pointe Claire, Quebec
Taylor Forge Canada Inc., Hamilton, Ontario
Thyssen Marathon Fine Steels, Mississauga, Ontario
TransAlta Utilities Corp., Calgary, Alberta
TRIUMF, Vancouver, B.C.
Trutom Limited, Montreal, Quebec
Universal Pipe Line Ltd., Montreal, Quebec
Université de Montréal, Montreal, Quebec
University of Regina, Regina, Saskatchewan
University of Saskatchewan Library, Saskatoon, Saskatchewan
University of Toronto, Toronto, Ontario
Uranerz Exploration & Mining Ltd., Saskatoon, Saskatchewan
Urangesellschaft Canada Ltd., Toronto, Ontario
Uranium Information Centre Ltd., Melbourne, Australia
Velan Incorporated, Montreal, Quebec
Versatile Vickers Inc., Montreal, Quebec
W.L. Wardrop & Associates Ltd., Winnipeg, Manitoba
Westinghouse Canada Inc., Hamilton, Ontario

WHAT NUCLEAR ENERGY MEANS TO CANADA

• Jobs

31,000 direct jobs, many of them high-tech
Equivalent of nearly 100,000 jobs overall

• The Economy

$3.6 billion per year contribution in 1984

Compared to:	1983
Chemicals	5.3 billion
Automobiles	4.4 billion
Metals refining and smelting	3.4 billion
Communications equip.	3.0 billion
Aircraft and parts	2.5 billion

Ontario has already saved $5 billion in foreign exchange by using uranium rather than coal. Accumulated benefits of Ontario's nuclear program will amount to $15 billion by the year 2000.

• World Leader in Uranium Exports

Canada's 1984 production of 11,200 tonnes contained more than twice the energy available from Canada's total annual oil production.

Canada's order book for uranium exports is worth over $10 billion, the largest in the world.

• Excellent Return on Nuclear Research Investment by Government

The most effective in the western world in terms of electricity produced per research dollar spent to the end of 1984.

	Electricity per US $ spent (kWh)	Total Expenditure (US $ billion)
Canada	165	2.4
U.K	121	5.8
U.S.A.	102	30.3
Japan	92	8.4
France*	59	10.6
W. Germany	54	10.8
Italy	22	2.9

*(To end of 1983)

• Low Cost Electricity

One third of Ontario's electricity comes from CANDUs and helps keep Ontario rates among the cheapest in the world.

	Cents per kWh	Minutes Worked to buy 1 kWh
Ontario	4.0	0.25
Sweden	6.0	0.38
California	7.5	0.36
France	9.0	1.20
Detroit	9.0	0.35
Japan	17.0	1.56
New York City	20.0	1.18

Revised January 1986

• Reliable Performance

CANDU stations are world leaders in reliability of operation. CANDUs have been consistently rated in the top ten of more than 300 reactors world-wide.

• Prevention of Environmental Damage

If Ontario Hydro had used coal-fired generating plants to produce the same amount of electricity as has been made by its nuclear plants to date it would have released four million tons of acid gas into the atmosphere and produced nine million tons of ashes.

All of the used fuel from the nuclear plants would occupy little more than three TTC subway cars. The coal ashes alone would require about 90,000 such subway cars if coal had been used. What's more the used nuclear fuel still has the potential for recycling to produce much more energy.

• The World Scene

Most industrial countries have a strong commitment to nuclear energy. By 1990 there will be over 500 power reactors in service. At 400,000 MWe this represents more capacity than all the world's hydro-electric plants.

• Reactor Exports

CANDUs currently hold 5% of the world reactor power market which is expected to grow rapidly through the turn of the century. This is a larger share than for most other industries.

• Spin-Off Benefits

Nuclear energy offers many additional beneficial uses and Canada is at the forefront of these developments.

Health and Medicine — Diagnosis, Cancer Therapy, Instruments and Dressings Sterilisation.

Food and Agriculture — Crop Improvement, Pest Control, Food Preservation, Animal Husbandry.

Industry — Gauging, Analysis, Tracers, Navigation Aids.

• Still to Come

Many important potential developments are waiting in the wings — Major district heating concepts, tar-sands extraction, fusion energy, etc.

For further information about Nuclear Energy in Canada contact:
CANADIAN NUCLEAR ASSOCIATION,
111 ELIZABETH STREET, TORONTO, ONTARIO
M5G 1P7 (416) 977-6152

NEWS RELEASE CNA ANC COMMUNIQUÉ

January 31, 1986

FOR IMMEDIATE RELEASE

for further information:
I. Wilson: (416) 977-6152
or (416)226-4305 evenings and
weekends

SUBJECT: BUDGET BRIEF TO FEDERAL GOVERNMENT

Canada's 1984 and 1985 uranium production contained twice the energy in Canada's oil production, the Canadian Nuclear Association said in a brief delivered yesterday to Finance Minister, Michael Wilson.

The uranium production also exceeded the total energy in all of the country's crude and natural gas production, the brief stated.

The brief, intended for cabinet consideration leading to the formulation of this year's federal budget, calls for the government to more fully recognize the importance of uranium to the Canadian economy and in the formulation of future energy policy.

"Through its uranium sales Canada exports about as much energy as it consumes," said Dr. Norman Aspin, President of the Association. He pointed out that by 1990 the electricity

...2

produced in 34 countries worldwide by nuclear reactors will exceed the electricity produced by all the world's hydro-electric plants.

"Canada's return on government investment in nuclear research and development has been outstanding," said Dr. Aspin. "Not only have we spent less than any other country attempting to develop a domestic nuclear reactor program, only our CANDU and the American originated light water reactor are commercially competitive for sale in the world marketplace."

"Government expenditure of approximately 2.4 billion dollars over the last 20 years has resulted in more than $20 billion of investment in uranium mines and domestic power plants. Uranium exports bring in over a billion dollars annually," Aspin added.

The brief calls for government support for the sale of a CANDU reactor to Turkey and the construction of a proposed plant in New Brunswick which will initially produce electricity for export to the United States.

The brief also supports the government's stated intention of gradually reducing its financing of nuclear research, "but only if the government can ensure sufficient alternative funding to support the continuance of our world-class R&D facilities and activities," Aspin concluded.

-30-

BACKGROUND

The Canadian Nuclear Association coordinates and represents the interests of electrical utilities, manufacturers, consultants, government departments, financial and educational institutions, uranium producers and labor organizations interested in the civilian applications of nuclear energy including electricity generation, medical treatment and food preservation. It is a major source of authoritative information on a wide range of topics relating to nuclear energy, particularly from a Canadian perspective.

-30-

Canadian Nuclear Association Association Nucléaire Canadienne
111 Elizabeth Street, Toronto, Ontario M5G 1P7 Telephone (416) 977-6152 Telex 06-23741 Cable Canuca